

Amendments to the Specification:

Page 1, amend the material on lines 1-14 as follows:

Description

~~Optical receiver circuit~~

~~Technical field:~~

OPTICAL RECEIVER CIRCUIT

Background of the Invention:

Field of the Invention

The invention relates to an optical receiver circuit having an optical reception device and an amplifier device connected downstream. Light incident on the reception device (e.g. photodiode) - for example light from an optical waveguide of an optical data transmission system - is detected by the reception device with the formation of an electrical signal (e.g. photocurrent); the electrical signal is subsequently amplified by the amplifier device connected downstream.

Page 3, delete the paragraph on lines 12-15 as shown below:

~~This object is achieved according to the invention by means of an optical receiver circuit having the features in accordance with patent claim 1. Advantageous refinements of the invention are specified in subclaims.~~

Page 9, amend the material on lines 1-14 as shown below:

Exemplary embodiment

Brief Description of the Drawing:

The sole figure of the drawing is a block diagram of an exemplary embodiment of an optical receiver circuit.

Description of the Preferred Embodiment:

~~In order to elucidate the invention, a figure shows an exemplary embodiment of an optical receiver circuit according to the invention.~~

The figure ~~reveals~~ shows a photodiode 10 as a reception device ("useful" reception device), which is connected to one terminal E30a of a differential amplifier 30 via a transimpedance amplifier 20. The other input E30b of the differential amplifier 30 is connected via a further preamplifier 40, embodied as a transimpedance amplifier, to a "dummy" photodiode 50 provided as a "dummy" reception device

which electrically simulates the electrical behavior of the reception device 10 in the illumination-free case.

Page 9, line 24 through page 10, line 24, amend the two paragraphs as shown below:

~~At the output end,~~ The output of the differential amplifier 30 is connected to a second differential amplifier 80, which further amplifies the output signal of the first differential amplifier 30. The output of the second differential amplifier ~~and, at its output,~~ generates an output signal  $S_{res}'$  corresponding to the optical signal of the photodiode 10 and the inverted signal  $-S_{res}'$ , which is inverted with respect to ~~said the~~ the output signal  $S_{res}'$ .

~~At the output end,~~ The output of the differential amplifier 80 is connected to an AGC (amplitude gain control) control circuit 90. The output of the control circuit 90 ~~, which is~~ connected to the two feedback impedances RF1 and RF2 ~~at the output end~~. The control circuit 90 sets the impedance RF1 and RF2 in a manner dependent on a control signal S3 present at a control input S90 of the control circuit 90. Via ~~said the~~ the control input S90, the gain of the two transimpedance amplifiers 20 and 40 can be set externally at the user end. Since the achievable gain V and the bandwidth B of the circuit

are to an approximation related to one another ( $V \cdot B = \text{constant}$ ), by altering the gain it is also possible to set the achievable bandwidth at the user end. As an alternative or in addition, the control circuit 90 can also connect additional capacitances (or inductances) in parallel or in series with the two feedback impedances  $R_{F1}$  and  $R_{F2}$  in order to modify the feedback behavior and in order to avoid the occurrence of electrical oscillations, for example. Furthermore, the output signals  $S_{res}'$  and  $-S_{res}'$  of the second amplifier 80 are applied to the control circuit 90, so that the control circuit can prevent overdriving of the amplifier, for example.

**Page 12, lines 12-23, amend the paragraph as follows:**

Despite all this, interference signals  $ST2$  can be coupled into the "dummy" photodiode 50, for example via the leads of the photodiode 50. ~~Said~~ The interference signals  $ST2$  are amplified by the further transimpedance amplifier 40 and pass as amplified interference signals  $ST2'$  to the further input  $E_{30b}$  of the differential amplifier 30. Consequently, at the output of the differential amplifier 30, output signals  $S_{res}$  - and the inverted signals  $-S_{res}$  with respect thereto - are formed in accordance with

$$S_{res} = S1 + St1 - (S2 + St2).$$

Page 14, lines 1-15, amend the two paragraphs as follows:

The low-pass filter 110 at the power supply voltage VCC1 serves, moreover, to filter out high-frequency interference of the voltage supply VCC1, so that ~~said~~ the interference cannot even reach the differential amplifier 30 in the first place.

The figure furthermore ~~reveals~~ shows terminal pads 200 and 210, which can be connected to one another by means of a bonding wire 220. By means of such a bonding wire 220, the capacitor C<sub>SYM</sub> can be connected to the further transimpedance amplifier 40. In this case, the capacitor C<sub>SYM</sub> may replace the "dummy" photodiode 50 if such a photodiode 50 is not available. The capacitor C<sub>SYM</sub> is then preferably dimensioned in such a way that it essentially corresponds to the capacitance of the "absent" dummy photodiode 50 or the capacitance of the useful diode 10.

Page 15, delete the entire page:

~~List of reference symbols~~

~~10 — Photodiode~~

~~20 — Transimpedance amplifier~~

~~30 ——— Differential amplifier~~  
~~40 ——— Further transimpedance amplifier~~  
~~50 ——— "dummy" photodiode~~  
~~60 ——— Operational amplifier~~  
~~70 ——— Operational amplifier~~  
~~80 ——— Second differential amplifier~~  
~~90 ——— AGC circuit~~  
~~100 ——— DCC circuit~~  
~~110 ——— Low pass filter~~  
~~200, 210 Pad terminals~~  
~~220 ——— Bonding wire~~  
~~RF1, RF2 Controllable feedback impedances~~

Page 16, amend the top line as follows:

~~Patent Claims~~ I Claim:

In the Abstract, please replace the abstract with the follow  
abstract, which appears on the following separate page: